

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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in re Application of: Li, et al.

Serial No.: 09/469,709

Confirmation No.: 5296

Filed:

December 12, 1999

For: High Through-Put Copper CMP With Reduced Erosion and Dishing

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

Group Art Unit: 1763

Examiner:

G. Goudreau

SEP LANGE

CERTIFICATE OF MAILING 37 CFR 1.8

I hereby certify that this correspondence is being deposited on September 19, 2001 with the United States Postal Service as First Class Mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231.

RESPONSE TO OFFICE ACTION DATED JUNE 19, 2001

In response to the Office Action dated June 19, 2001, having a shortened statutory period for response set to expire on September 19, 2001, please enter the following amendments and reconsider the claims pending in the application for reasons discussed below.

IN THE SPECIFICATION:

Please replace the paragraph at page 11, line 14, to page 12, line 8, with the following paragraph:

Embodiments of the present invention include a multi-step process comprising: (a) CMP on a first rotating or linear platen employing a fixed abrasive polishing pad or a conventional, non-fixed abrasive polishing pad using an abrasive or abrasive-free chemical agent, at a high removal rate to remove most of the bulk Cu overburden; and (b) CMP on a second rotating or linear platen employing a fixed abrasive polishing pad or a conventional, non-fixed abrasive polishing pad using an abrasive or abrasive-free chemical agent, at a reduced removal rate with high selectivity to and stopping on the Ta or TaN barrier layer. Buffing on a third rotating or linear polishing pad can then be

